J . H . F L E T C H E R & C O .

DM-125

MACHINE/ELECTRICAL CHECKLIST

THIS BLOCK FOR MSHA USE ONLY.
M E # _____
REV. LEVEL _____

INSPECTORS NAME AND INITIALS _____

DATE _____

MAKE AND MODEL NO. _____

MACHINE TYPE _____

MACHINE SERIAL NUMBER _____

MACHINE APPROVAL NUMBER _____

"If an MSHA Part 36 approval plate has been affixed to this machine, it must meet the requirements of Part 36 Title 30 Code of Federal Regulations. It is the responsibility of the user to ensure that this machine is maintained in permissible condition in accordance with this checklist.

"ALL INSPECTIONS AND TEST SHALL BE PERFORMED IN FRESH AIR."

PERMISSIBILITY

1. For a complete permissibility evaluation, this checklist must be used in conjunction with a power system checklist DM-44A

2 The design of the exhaust conditioner limits permissible operation to grades not exceeding 20°/0 .

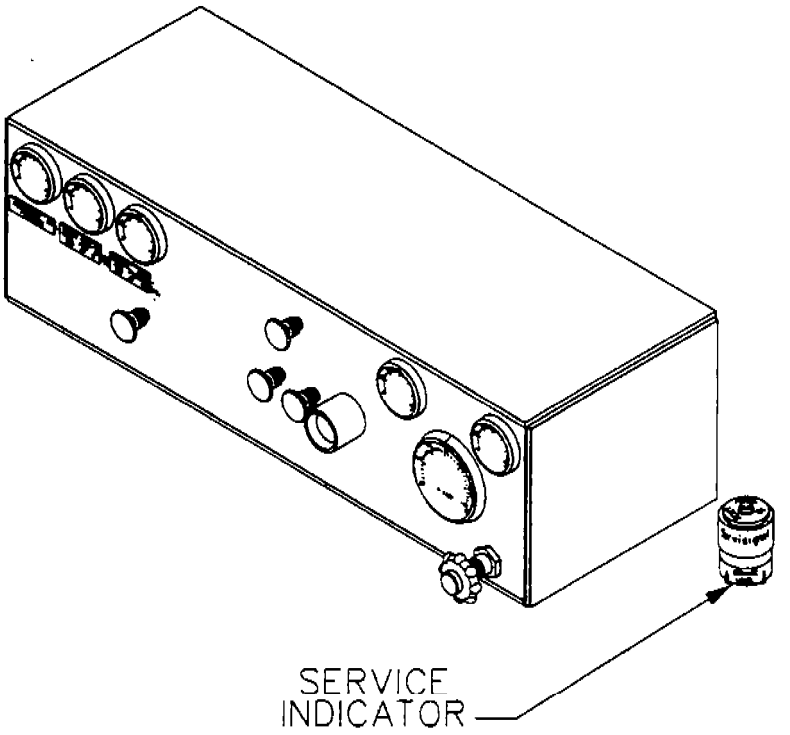
3. Due to braking capability limitation, this machine shall not be operated on grades greater than 30% .

NOTE: When operated in areas which do not require permissible machines. this machine can be operated on grades greater than the 20% grade limitation due to the design of the exhaust conditioner. but in no case can the machine be operated on grades greater than 30% due to braking capability limitations.

APPLICABLE APPROVAL
31-134-0

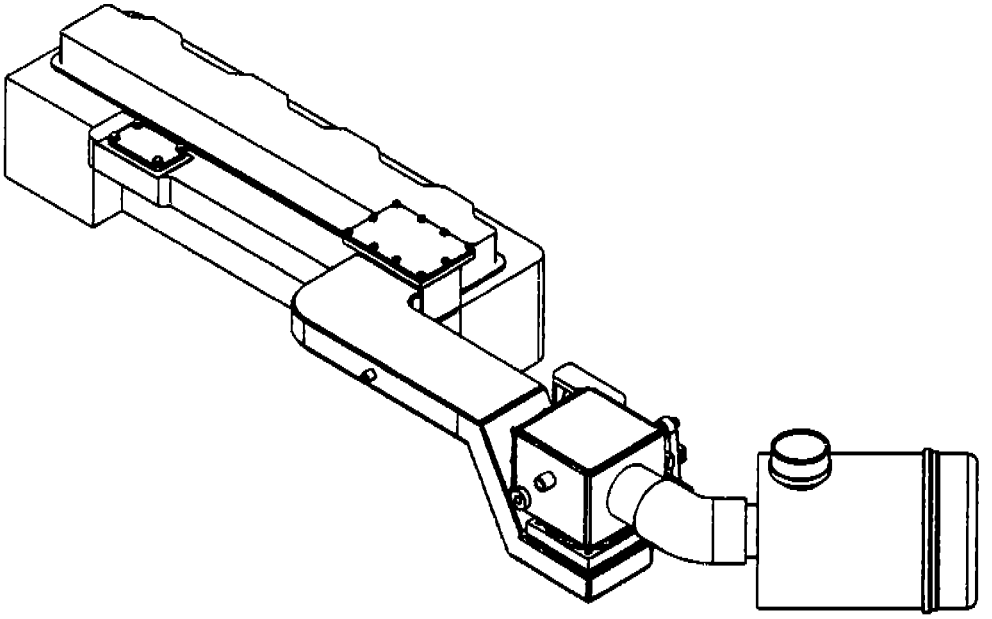
The following test and inspection procedures shall be conducted on the surface or in mine ventilation intake air only.

INTAKE SYSTEM (Engine Combustion Air)



[WEEKLY] 1. ( ) Restriction on air cleaner is not showing RED.

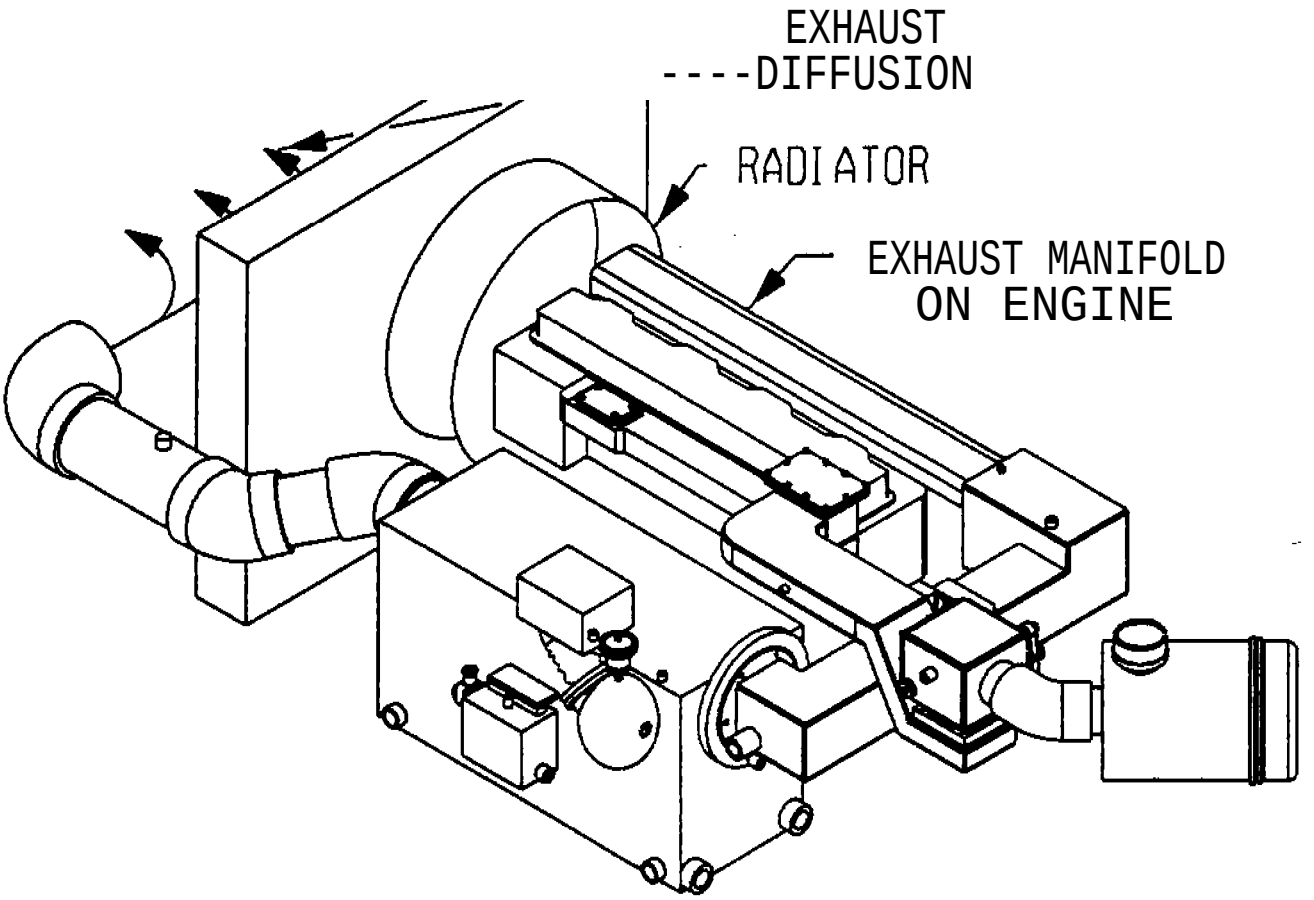
[WEEKLY] 2 . **( )** Intake piping from air cleaner to air shut-off valve has no holes and is securely fastened.



(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 7S.1914

EXHAUST SYSTEM

[W E E K L Y] **( )** Check that the exhaust is discharged in front of the engine cooling fan on the side opposite the tram area.



[WEEKLY] 2. ( ) Check that the scrubber tank is in good condition with no open holes due to corrosion and all plugs are in place.

[WEEKLY] 3. ( ) Check that exhaust scrubber outlet piping is in place and properly secured to the exhaust diffuser.

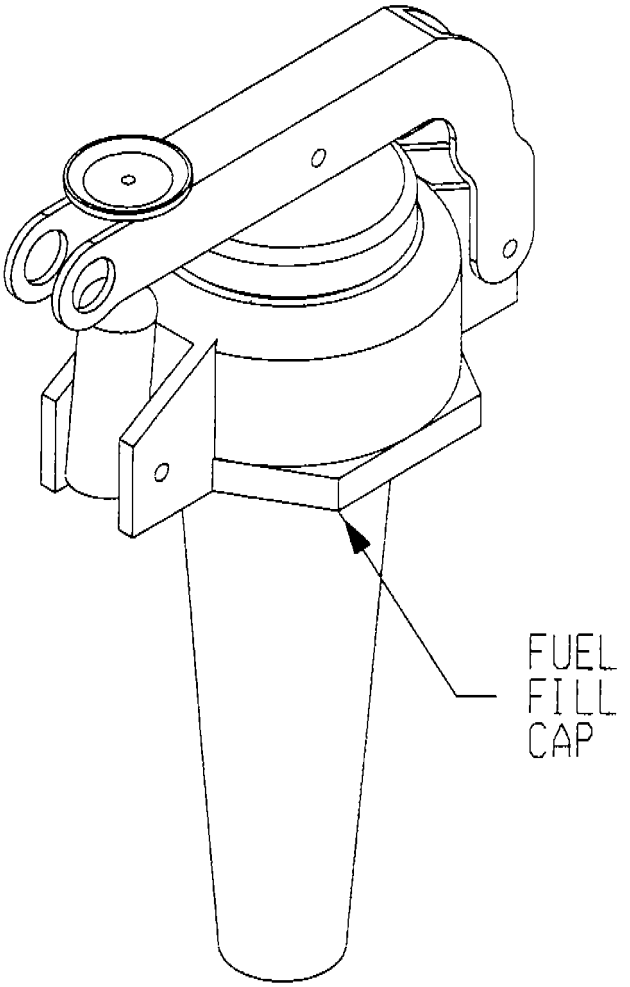
(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

FUEL SYSTEM

[WEEKLY] 1 . ( ) There are no fuel leaks.

[WEEKLY] 2- ( ) The fuel filler cap (1)* is vented and the vent is not plugged.

[WEEKLY] 3, ( ) The fuel fill system is self-closing and is attached to the tank in a manner which will prevent loss during refueling.



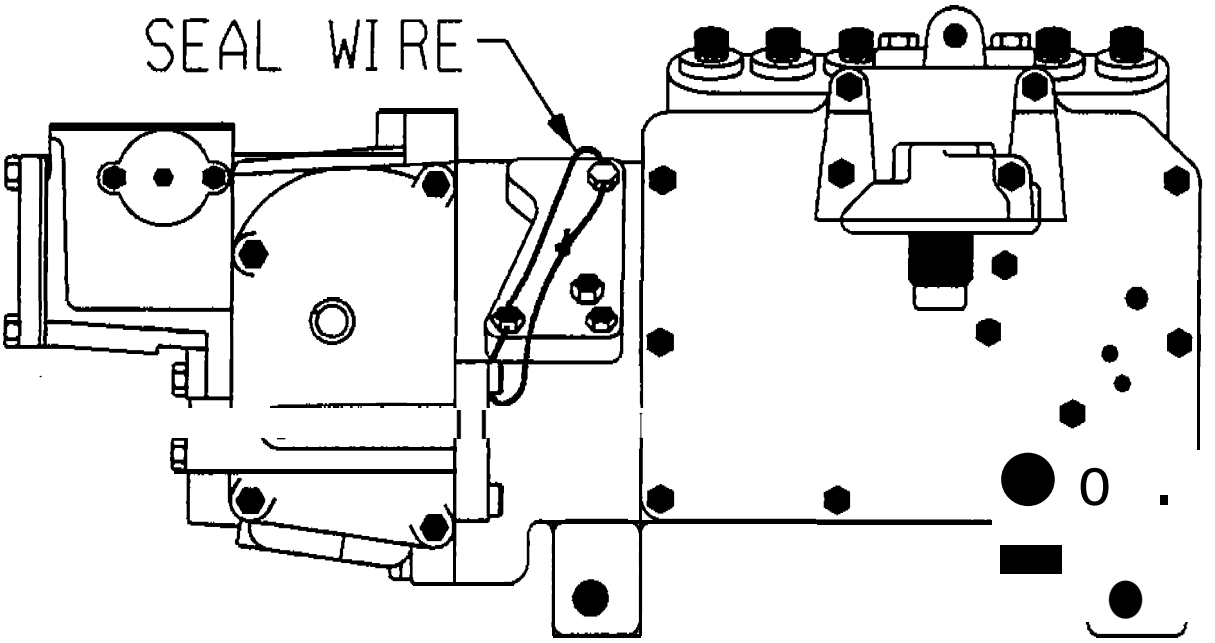
[WEEKLY] 4. ( ) Auxiliary fuel tank capacity has not been added to the vehicle.

[WEEKLY] 5. ( ) Fuel filters (2)* are properly installed and are not damaged.

[WEEKLY ( ) The fuel injection rate adjustment mechanism (3)* and the engine governor setting are locked and sealed. See Figure at top of next page.

* Referenced items shown on Machine Layout Diagram.

(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE Examination IN ACCORDANCE WITH 30 CFR SECTION 75.1914



WEEKLY 7. **( )** The fuel shut-off valve (4)* in the fuel supply line is operable.

[WEEKLY] 8, ( ) The drain plug (5)* in the fuel tank is locked in position. (Pipe plugs are considered "locked in position" when tight.)

[WEEKLY] 9. **( )** Fuel lines are not routed near or connected to hot exhaust components and are protected from external damage.

[WEEKLY] 10. **( )** Fuel lines are adequately secured.

* Referenced items shown on Machine Layout Diagram.

(WEEKLY') - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 7S.1914

BRAKING SYSTEM

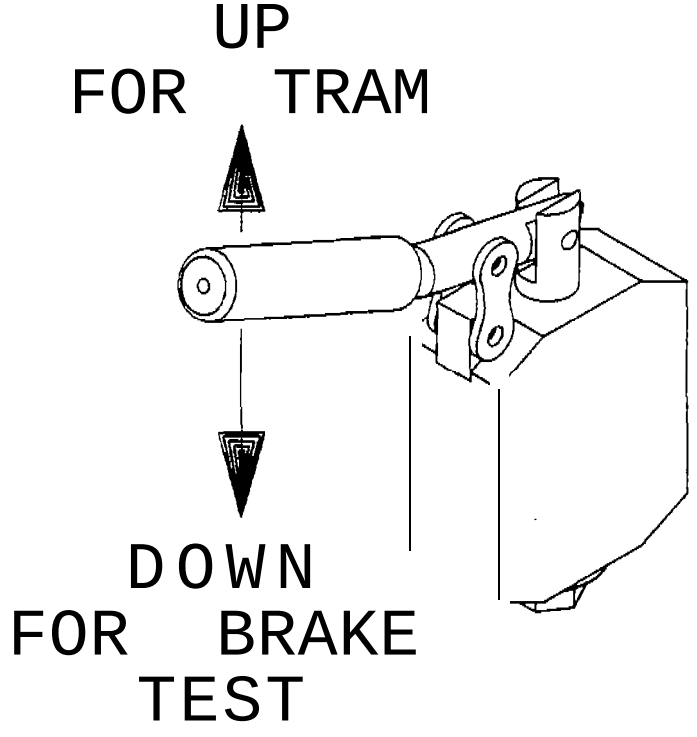
WARNING: Brake tests are to be conducted on a relatively level surface, away from traffic areas where other machines or persons may be moving about. Consider the possible consequences of testing a machine with, assumed braking inadequacies, and select an area where the test machine would not cause an accident due to these inadequacies.

[WEEKLY] 1. ( ) Brake Test.

1. Shift brake test valve to isolate brakes from hydraulic pressure.

2. One at a time move tram control valve handle forward to attempt to tram one crawler drive, in a forward direction, until 2000 psi is reached on the gauge, if no movement is detected, release handle, brake is in good working order. Try the other handle, if no movement is detected, release valve handle, brake is in good working order. NOTE! if either crawler moves during test, rebuild or replace brakes. (Proper results can only be achieved when tram pressure is at 2000 psi no more no less)

3. Shift brake test valve to expose brakes to tram hydraulic pressure for normal operation.



* Referenced items shown on Machine Layout Diagram.

(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

C. ELECTRICAL LIGHTING SYSTEM:

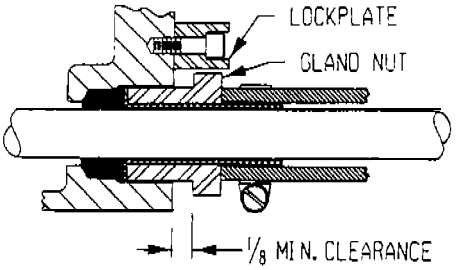
ALL ELECTRICAL ENCLOSURES MUST MEET THE FOLLOIVING:

[WEEKLY]	1.	( )	All electrical enclosures (i.e., alternator (7)*, headlight switch (8)*, headlight (9)*) have an MSHA plate attached that is clearly stamped with an MSHA certification number.
[WEEKLY]	2.	( )	All electrical enclosures are securely mounted and all vulnerable electrical components are protected from physical damage.
[WEEKLY]	3.	( )	All electrical enclosures are intact (not cracked or broken); the headlight lenses are not loose. All shaft and/or pushbutton controls are operable.
[WEEKLY]	4.	( )	All threaded covers are secured from loosening by a locking screw, wire, or other means.
[WEEKLY]	5.	( )	Lockwashers or equivalent devices are provided for all bolts, screws, or studs that secure parts of the explosion-proof enclosures. All bolts, screws, and studs are in place and tightened.
[WEEKLY]	6.	( )	None of the fastenings used for joints on the explosion proof enclosures are used for attaching non-essential parts or for inking electrical connections.
	7.	( )	All joints forming the flame arresting paths (flanges and covers) are smooth and free from rust, corrosion, and pitting.
[WEEKLY]	8.	( )	Use feeler gauges of the appropriate size to insure the clearances in all accessible flame path joints, between the enclosures and corresponding covers, are not exceeded.
[WEEKLY]	9.	( )	Headlight(s) is/are installed at each end of the machine and operable.
[WEEKLY]	10.	( )	Headlight switch must not control or operate any electrical circuit other than headlights.

* Referenced items shown on Machine Layout Diagram.

(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

[WEEKLY] 11. ( ) All lead entrances packing glands) are assembled so that the cable jacket penetrates into the enclosure and when tightened a 1/8" minimum clearance remains between the packing nut and stuffing box. All packing nuts and stuffing boxes are secured from loosening by a locking screw, wire, or other means.



[WEEKLY] **12.** **( )** All unused lead entrances are closed with metal plugs which are secured in place by spot welding, brazing, or equivalent.

CABLES CONNECTING ELECTRICAL COMPONENETS MUST CONTINUE TO BE:

[WEEKLY] 13. **( )** Clamped in place to prevent undue movement.

[WEEKLY] 14. ( ) Protected from mechanical damage by position. flame resistant hose conduit, metal tubing, or troughs. NOTE: Flexible or threaded rigid metal conduit is not acceptable.

[WEEKLY] 15. **( )** Not subject to abrasion from sharp corners or edges.

[WEEKLY] 16. **( )** Isolated from hydraulic lines and hydraulic components.

[WEEKLY] 17. **( )** Isolated from fuel lines.

[WEEKLY] 18. **( )** Flame resistant if not enclosed in hose conduit. This is indicated by "MSH.A" markings on the cable.

[WEEKLY] 19. ( ) If hose conduit is used, it must be securely clamped at both ends and MSHA marking appear as "Flame-Resistant, US MSHA, US MESA, or USBM 2G-xxx ."

NOTE: The **following check may be performed** when an electrical enclosure **has been disassembled for whatever reason, or if there is cause to believe a problem exists within the enclosure.**

20. ( ) Provided with short circuit protection for each power conductor.

21. ( ) Electrical connections inside the electrical enclosures are secure (not loose) and are insulated where space is limited. The ground conductors are not broken and are securely attached.

(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

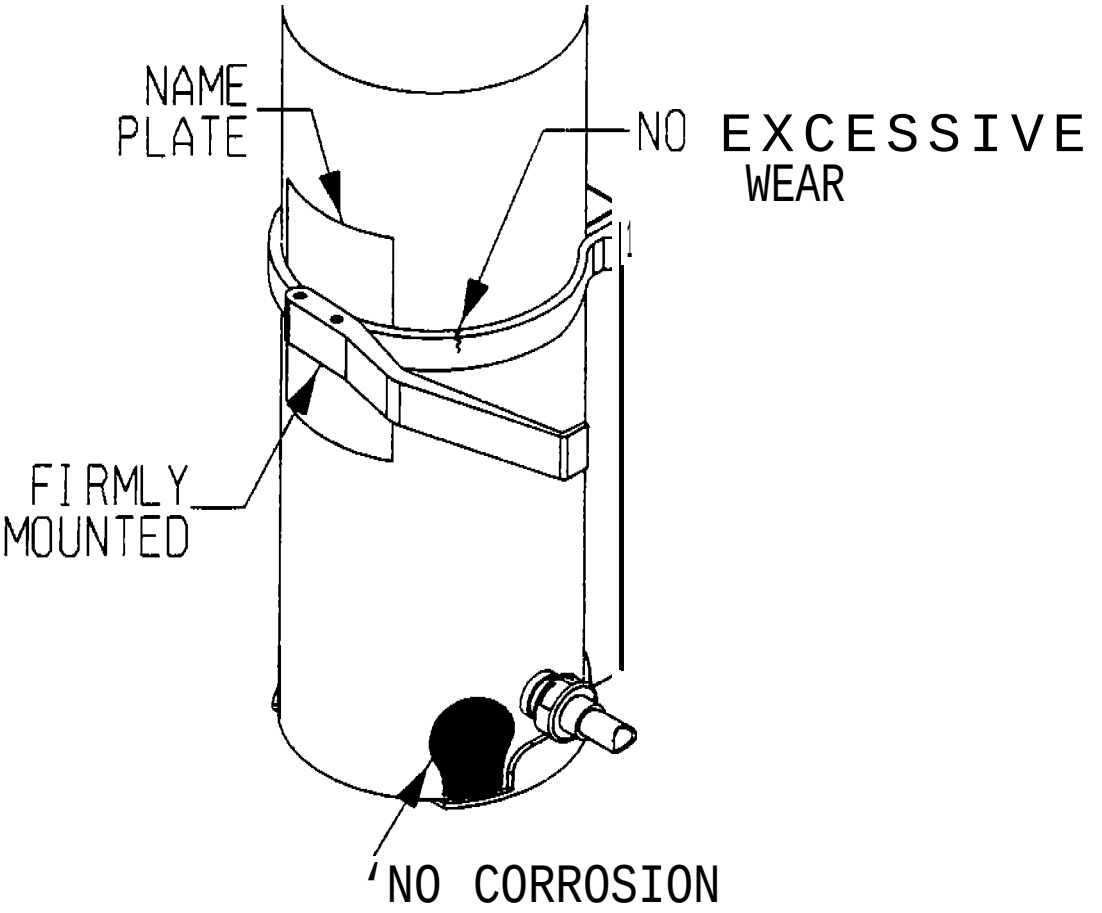
D. MISCELLANEOUS:

[WEEKLY] ( ) The machine is equipped with at least one 5 lb. dry chemical fire extinguisher (10)*. All fire extinguishers are fully charged.

7. ( ) Fire suppression system is charged and in good condition. The fire suppression system is operable as determined by the following checks:

a. ( ) Note general appearance of system components for mechanical damage or corrosion.

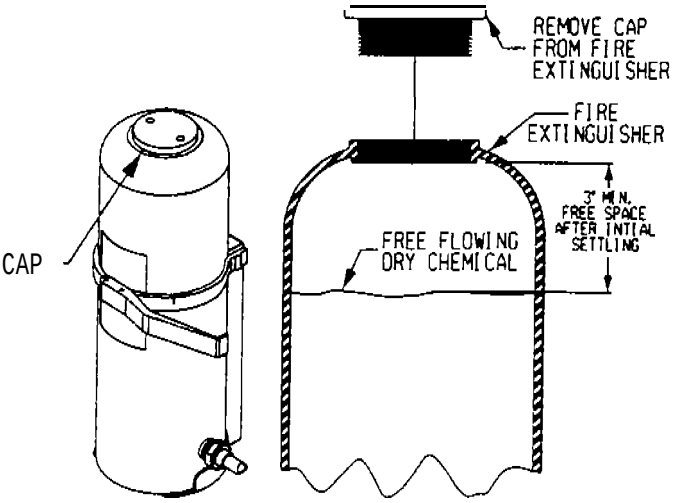
b. ( ) Check nameplate(s) for readability.



* Referenced items shown on Machine Layout Diagram.

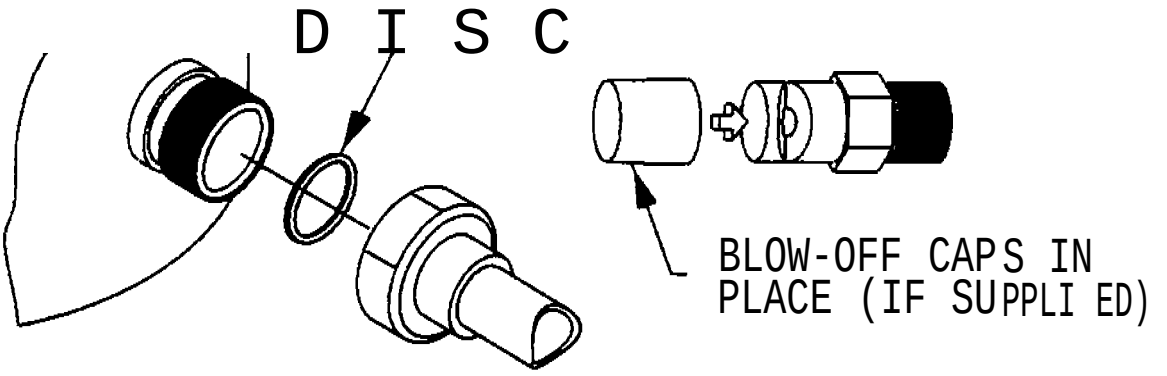
(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY -MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

c. ( ) Remove fill cap.



d. ( ) Make certain tank is filled with free-flowing dry chemical to a level of not more than 3 inches from the bottom of the fill opening. If dry chemical level is more than 3 inches, replace cap and heft bottle. (Note: heft means to shake the bottle up and down slightly, this according to the manufacture, will loosen settled dry chemical and make it free flowing.) Remove fill cap and measure level again.

e. ( ) Secure fill cap, hand tighten.

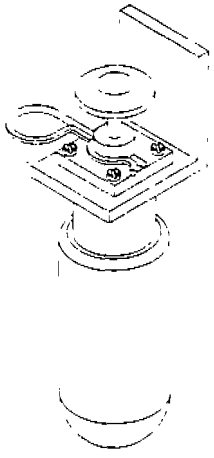


f. ( ) Remove expellant gas cartridge and examine disc-seal should be unruptured.

g. ( ) Return cartridge to pneumatic actuator/cartridge receiver, hand tighten and secure in bracket.

h. ( ) Check hose, fittings and nozzles for mechanical damage and cuts.

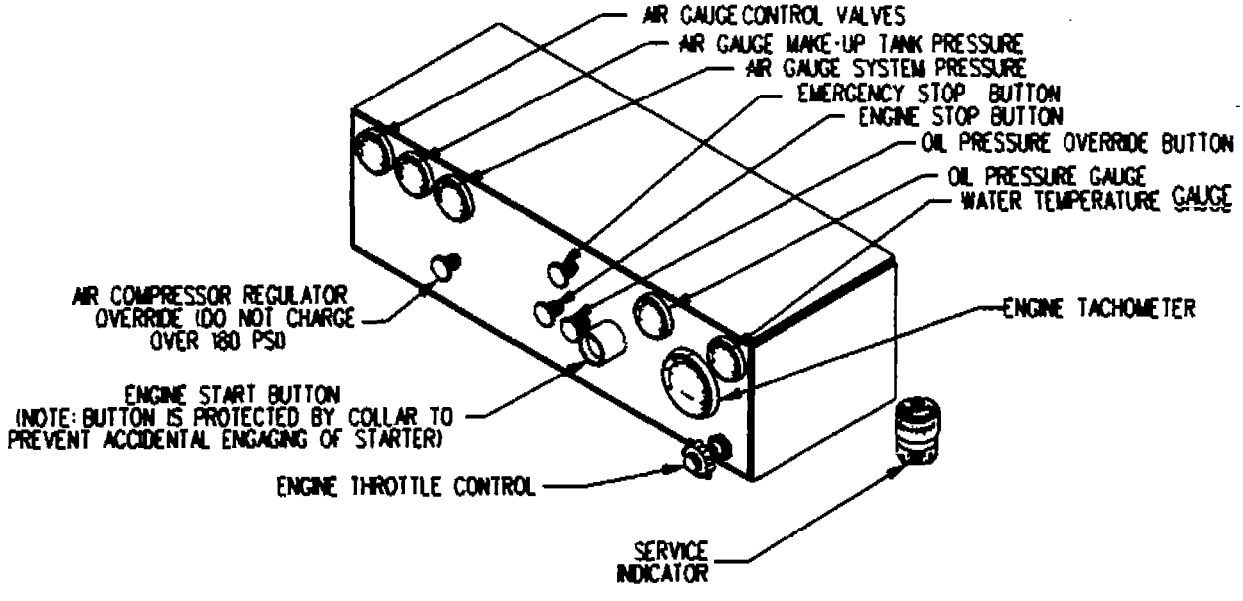
i. ( ) Check nozzle openings - slots on nozzle should be closed (capped) with silicone grease or cover with plastic blow-off caps.



j - ( ) Remove cartridge from manual actuator(s), and examine disc-seal should be unruptured.

k. ( ) Return cartridge to manual actuator(s) assembly, hand tighten.

1. ( ) Replace any broken or missing lead and wire seals.



[WEEKLY] 3. ( ) The main air pressure gauge is operable.

[WEEKLY] 4. ( ) The machine has an MSHA Part 36 approval plate (1 1)* attached to it in the operator's compartment.

* Referenced items shown on Machine Layout Diagram.

(WEEKLY) - DESIGNATES THOSE INSPECTION CHECKS THAT MUST BE PERFORMED DURING THE WEEKLY MAINTENANCE EXAMINATION IN ACCORDANCE WITH 30 CFR SECTION 75.1914

[WEEKLY] 5. ( ) The two tram levers and two position control levers return to neutral when released.

[WEEKLY] 6. ( ) The warning device (gong) is operable.

[WEEKLY]7. ( ) Canopy control levers return to neutral when released.

[WEEKLY] 8. ( ) The emergency remote engine stops, located at the driller's stations and at the position control station, will actuate the flapper control cylinder on the upper intake housing.

[WEEKLY] 9 . ( ) The machine has a completed MSHA part 33 dust approval plate (* 12), specifying the dust approval number, attached.

[WEEKLY] 10. ( ) The machine has a tag listing the minimum RPM for minimum operation of the dust collection system is attached the machine at both drill stations and at the speed control in the operators compartment.

Checks to be completed when Particulate Filter is used.

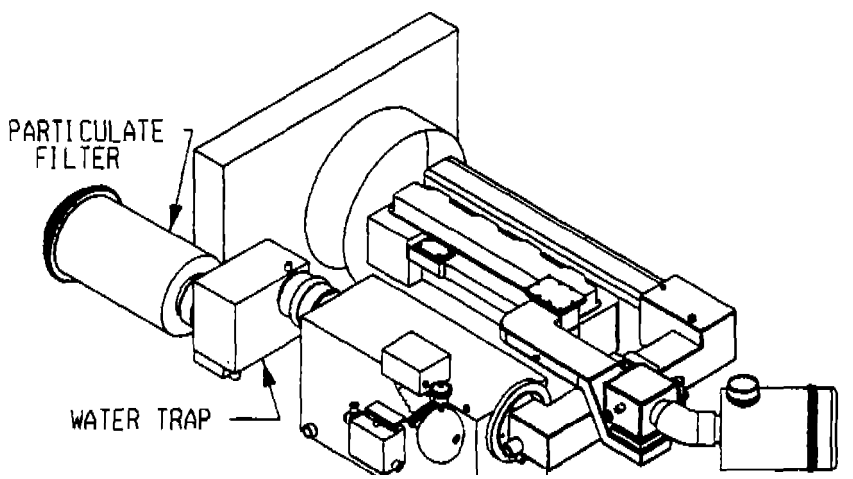
[WEEKLY] 11. ( ) The diesel particulate filter housing (*13) is not damaged.

[WEEKLY] 12. **( )** A tag (* 13) is located adjacent to the g-age, that measures backpressure for the particulate-filter, specifying filter to maintenance when guage reads 16 inches of water.

[WEEKLY] 13. ( ) The gage (*14) that measures backpressure for the particulate filter is not damaged and appears to operate properly.

[WEEKLY] 14. ( ) The particulate filter utilizes the proper filter element, (Jeffery #5 16372, Donaldson #P529763, Wagner #92A5021)

This machine is permissible with or without falter element present in the falter housing.



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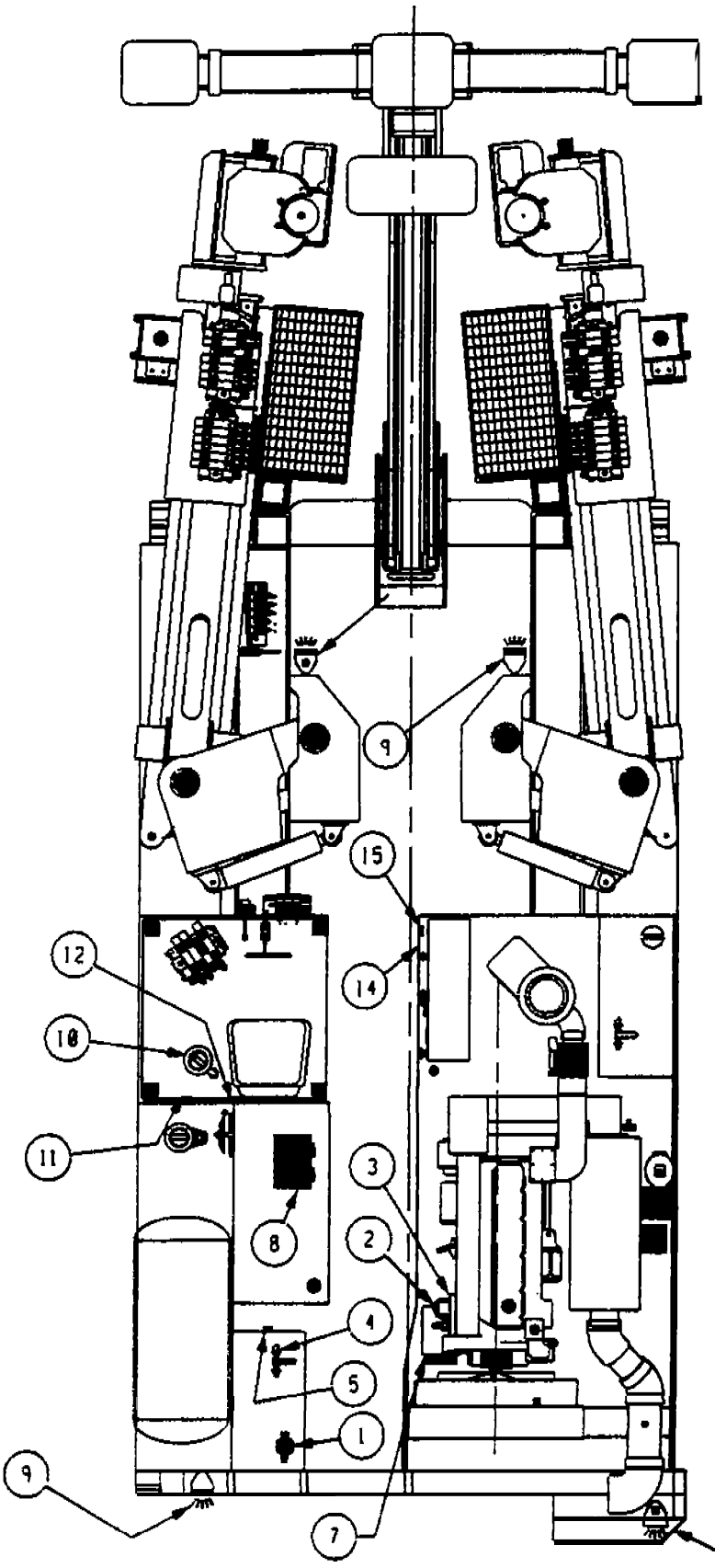
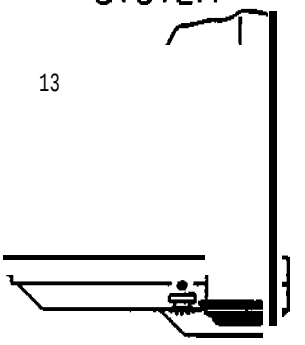


NOTE: DENOTES OPTIONAL ITEM

OPTIONAL: PARTICULATE SYSTEM

13



SHEET # DM- 125
SHEET 12 of 13